# Annual Reports on the Medical Department, for the Year 1906.

Medical Office, Lagos, Southern Nigeria, 8th May, 1907.

SIR,

I have the honour to forward the Annual Reports of the Medical Department of the Eastern, Western, and Central Provinces, of Southern Nigeria for the year 1906.

- 2. I accepted the position of Principal Medical Officer of the Amalgamated Governments of Lagos and Southern Nigeria, as from 1st May, 1906.
- 3. I went on leave of absence on the 12th September, and returned on the 27th February, 1907; the Report has therefore been mainly compiled and arranged by Dr. Hopkins, Deputy Principal Medical Officer, who acted as Principal Medical Officer during my absence.
- 4. I think it may be permissible if I direct attention to the remarkable health record of the Railway Construction European Staff during the time of the construction of the Ibadan-Oshogbo Railway. I am told it is unique in the history of Tropical African Railway Construction. To my mind it shows what can be done when Medical instructions are obeyed; and when, as has been the case in the present instance, the Railway Construction Authorities have cordially and loyally assisted the Medical Department. I carnestly hope this good record will be continued in the future, when the Railway Extension from Oshogbo to Horin shall be in progress. At least I can promise that the Medical Officers will continue to be as vigilant and zealous as they have shown themselves hitherto in their endeavours to secure, as far as local circumstances permit, fairly good health for those engaged in the arduous task of Railway Construction in Tropical West Africa.

#### Smallpox and Vaccination.

5. It is now some years since a non-immigrant case of Smallpox has been admitted into the Smallpox Hospital in Lagos. A revelation,—as they assure me,—to the older inhabitants of this Town, of the results and value of careful vaccination. A very few years ago, an annual epidemic was to be regularly expected. It will be seen from the returns that there were but three of these immigrant cases in 1906. I only wish the results could be widely known in Yorubaland, so that the difficulties we now contend against in the Hinterland, in regard to Vaccination, might be to some extent diminished. This we must hope will come in time.

The good effects of Vaccination in towns in the Colony which come under the control of the Ordinance, such as Epe and Badagry, are evident also. Smallpox is now rarely seen in them, and when it occurs is most frequently seen in cases arriving from the endemic centres. The Hinterland Vaccination Staff has no doubt done good service, but it has been difficult, owing to demands on the Medical Staff, to supervise and check the cases vaccinated,—an essential for the securing of perfectly reliable statistics. I have extended the System employed in the Western Province to the

Central and Eastern Provinces, and trust much good will follow in time.

- 6. There is a very marked and increasing tendency for natives to seek European Medical aid, not only in Lagos Town, but at Outstations,—such as Ibadan. It has been a hard task to win them over, but we are now beginning to see encouraging and cheering results.
- 7. The marked fall during the past few years in the fatality from Malarial Fever, especially among Government Officials,—over whom we are able to exercise stronger influence than over other European Residents,—is also a noteworthy and gratifying feature of the annual statistics as shown in the attached Tables. If only the use of Mosquito-proof houses by all were compulsory, I am satisfied that the number of cases

of Malarial Fever would be limited to such as become infected outside the town, when travelling. In this connection I attach a table of the brief causes of death of European and Natives.

- 8. I attach returns showing the chief causes of death of Europeans and Natives, a study of which brings out the following points:—
- 9. Malarial, Blackwater Fever, and Dysentery cases, treated in the Eastern and Central Provinces.

#### Eastern Province.

Amongst Europeans there were 8 Blackwater Fever cases treated, with 2 deaths; and 184 cases of Malarial Fever.

Amongst Natives, 1,285 Malarial cases treated, with 3 deaths.

One case of Dysentery, and one of Diarrhæa, were treated amongst Europeans; the former proved fatal.

Amongst Natives, 273 cases Dysentery with 45 deaths; Diarrhœa 100 cases with one death.

#### Central Province.

In the Central Province there were 13 cases of Blackwater Fever, and 2 of Malarial Fever, treated amongst Europeans; out of which two deaths from Blackwater Fever occurred.

Amongst Natives there were 879 cases of Malarial Fever with 3 deaths; 438 cases

of Dysentery with 43 deaths; and 43 of Diarrhæa with no death.

For Western Province, see details in attached Tables of Vital Statistics; from which it appears that the Chief causes of death among Natives are,—the usual ones,—Malaria, Intestinal diseases, (Dysentery and Diarrhœa), and Pulmonary diseases, in the wet and cold seasons,—(chiefly Bronchitis).

The infant mortality is still as terrible a factor as ever in the Vital Statistics.

10. In a Memorandum I wrote during the past year, the following notes on the Anti-Malaria Work done in Lagos appear, and may be deemed of interest.

#### (a) Quinine.

- 1. Quinine is issued free to all Government Officials, European and Native, who will take it. The amount issued in 1905 was 990,258 grains and in 1906, 1,087,100 grains. This system was commenced in 1901.
- 2. The native population has been encouraged, by Lectures and teaching, to take Quinine; and to go to the Dispensaries for it; and especially to treat the infants and children.
  - 3. A Quinine ration is issued, weekly, to:
    - a. The Prisoners in the Jail; and
    - b. All Police, and W. A. F. F. Soldiers, who will take it.

Many of these avail themselves of the privilege, and the results have been most satisfactory, (vide end of paragraph 8).

## (b) Reclamation of Swamps.

Swamp land reclamation is being steadily carried out.

This will be one of the most valuable means of reducing Malaria in this country, when thoroughly carried out. But, since in swamps Mosquitos breed mainly, if not solely at the margin of the swamp, it is clear that when, in reclaiming swamp land, surface depressions are left, and thorough drainage not provided, the rise of the water level (which is at the surface of the ground here in the rainy season), causes all such depressions to become pools, in which the Mosquito-larvæ breed almost as freely as in the former swamp.

The improvement in Lagos from reclamation, during the past few years, is most marked. One very large area, which, three years ago, was foetid mangrove swamp-land, is now a level, grass grown, plain, where golf-links have been established. Other similar

areas have been filled in, and become a valuable asset, as well as a vast Sanitary and Anti-Malaria improvement. But great attention must be paid to drainage of these reclaimed areas, as I have pointed out above, or they will still be mosquito-breeding grounds.

## (c) Use of oil to standing water.

Kerosene oil is used on the surface of stagnant water in places which cannot be filled or drained. "Larvicide" was used with good effect in places where oil cannot well be employed. Unfortunately this article is not now manufactured.

## (d) Treatment of Wells, and Tanks, and Eave-gutters.

The complete and perfect covering of Wells, with the attachment of pumps, has been strenuously advocated, as open Wells form dangerous breeding places for Mosquitos. This particular precaution has not been, so far, widely extended; but there is good ground for hoping that it will be in the future. The Mosquito-proofing of Tanks,—an important essential,—is also constantly advocated, and has been carried out fairly well in Lagos Town in Government buildings; unfortunately it is not in universal

use even in the latter, and is, I fear, neglected by the Public.

Attention to the eave-gutters of houses (which necessarily exist for the collection and storage of tank-water in Lagos), has been constantly urged. Defective gutters, which I regret to say abound here, form one of the greatest difficulties we have to contend against in Anti-Mosquito work, since Mosquitos breed in them in profusion. This tends to neutralize the good done by destroying the other breeding-places in compounds (vide paragraph 5). In Calabar, with its excellent Water-supply, this source of danger does not exist, as it has been possible there to abolish eave-gutters altogether.

#### (e) Destruction of Mosquito-breeding places.

All that is possible is done by teaching, example, and the Sanitary Inspectors, to clear compounds of old tins, broken china, calabashes, neglected water-pots and the

other various collectors of water in which the larvæ breed.

Good work has been done in this direction; but I think that if a special Anti-Mosquito gang were employed, as originally advocated, the apathy of the native inhabitants (nearly 50,000 in number), in regard to this particular work, would not be so important an obstacle to success as it is.

There can be, however, no possible doubt that the number of Mosquitos has been

greatly reduced by what we have been able to do.

Trees, and herbage, affording shelter to adult Mosquitos are judiciously thinned and removed. The Bamboo, though ornamental, is very dangerous, as the adult insects shelter in the foliage, and the larvæ breed freely in the broken joints of the stems, which hold water for a long time after each shower of rain. We have advocated, therefore, the removal of the Bamboos growing near dwellings,—and some have been removed, in consequence, with benefit to the neighbouring houses.

## (f) Use of Mosquito-proof houses or rooms strongly advocated.

The use of Mosquito-proof houses, which I regard as the most potent aid we have against Malaria in this country,—(in view of the great difficulty, if not impossibility, of entirely exterminating Mosquitos, and the Malaria poison existing in 50,000 Natives)—is constantly urged; but unfortunately, with little effect. Even in those Government Quarters where a Mosquito-proof room has been provided, it is but little used by the occupants, who complain either of increased heat in them, or that their situation is not convenient. There is some basis for both these objections, in certain instances. But if Malaria infection is to be avoided here, it is imperative that, at least, the rooms used in the evening hours should be mosquito-proof, (i.e. the dining and sitting rooms). Unless this is done, a mosquito-proof bedroom (or other room which is not occupied in the evening), is practically useless, since infection takes place most frequently at dinner, and when sitting afterwards before going to bed. This I have repeatedly pointed out.

The Mosquito-net, properly used, affords enough protection in the bedroom, when it is not possible to mosquito-proof all the house,—which however should be the *rule*, in my opinion; hence, if economy prevent full Mosquito-proofing of the house, it is far

better to use the wire gauze for the dining and sitting rooms than for a bedroom. But economy should, I submit, not prevent full Mosquito-proofing of houses, since the gain in improved health and working power must compensate amply for any outlay. We endeavour to impress this on the Public,—but I fear that except among some Government Officials the advice is not acted upon.

The heat complained of in Mosquito-proof rooms can be mitigated by means of punkahs and fans. I can speak from personal experience, as for the two years that I lived in what is perhaps one of the hottest houses in Lagos, I had it made mosquito-

proof, and was never infected with Malaria while living in it.

The Principal Medical Officer's present house is, I believe, the only Mosquito-proof

house in Lagos. I have just completed a year in it, and have not been infected.

But it is obvious that while one is thus protected in such a house, every evening spent in another house permits of infection; hence for complete protection of all persons, every house should be treated with gauze in the suggested way.

## (g) Conclusion.

On the whole, though one feels that very much more can be done,—and will no doubt be done, in obedience to Medical advice,—to diminish the number of Mosquitos and the risk of Malarial infection here, one must note with much satisfaction the very great change in Lagos,—as regards Malaria among European Officials,—that has taken place during the period of which one has personal knowledge, -nine years. An attack of "Fever," at frequently recurring intervals, was regarded as inevitable, during the first few years of my residence here; that is not the case now. I can remember the time when at any little social gathering,—say a dinner-party,—there would be one or two vacant chairs, owing to the fact that some of the invited guests had suddenly "gone down with a touch of Fever," as the phrase was. This I have not seen for many a long day. Such experience is of value when forming a general opinion as to the decrease of Malaria. For it is difficult to give complete and accurate figures on this subject, except as regards deaths among Europeans, as Statistics were not accurately kept until comparatively recently, because all cases, (recoveries), that occur are not recorded except among Government Officials; and because, each year, we have been able to increase the recorded number of cases, as we have been able to add to the list of sources of reliable Statistics. But when the marked increase of the European population during the past few years (and especially during the last five years), is taken into account, and the Malaria death-rate examined, it will be seen that the Mortality has greatly diminished, actually as well as relatively to the great increase in population; and we are justified in believing that in the future Malaria will not play the fatal part it did in former years.

The following are the figures as regards deaths.

In 1900-1901. The European population for Lagos and Ebute-Metta, (including Shipping,) was 233.

In February, 1906, it was at least, 400 and was then increasing.

## 1. Deaths among European Officials.

	Malarial Fever.	Blackwater Fever.
<i>l</i> 1897.	2.	0.
1898.	2.	0.
1899.	4.	0.
1900.	5.	0.
A 1 * TA A* * 1		

Anti-Mosquito work started, and Quinine Prophylaxis more emphasized during latter part of 1900.

<i>3</i> 0.		
1901.	1.	0.
1902.	1.	1.
1903.	0.	1.
1904.	0.	0.
1905.	*1.	2.
1906.	0.	1.

More influence can be brought to bear on Officials than on other European Residents, as regards prophylaxis and early treatment.

## 2. Total Deaths of Europeans.

	Malarial Fever.	Blackwater Fever.
(1897)	11.	2.
European Population, 1898.	4.	0.
about 233 (including ) 1899.	12.	3.
Ships in port). \(\begin{aligned} \begin{aligned} \text{1900} \end{aligned}	. 10.	7.

Anti-Mosquito work started, and Quinine prophylaxis more emphasized during latter part of 1900.

-	(1901.	6.	4.
European Population (increasing all the time) 400.	1902.	4.	5.
	1903.	5.	2.
	1904.	6.	$\frac{1}{2}$ .
	1905.	6.	$\frac{1}{2}$ .
	1906.	5.	4.

I venture to think that these two Tables speak for themselves, and offer us great encouragement to continue our task,—however difficult it be,—of endeavouring to persuade individuals to take the necessary precautions for self-protection against Mosquito-bites and by Quinine prophylaxis; and to carry on, so far as we are able, the war against Mosquitos.

11. I attach Tables of the Vital Statistics of Lagos. I trust that in the future it may be possible to obtain interesting, if not perfectly accurate Statistics of the remoter Districts of this vast Territory.

I have the honour to be, Sir, Your obedient Servant,

H. STRACHAN,
Principal Medical Officer.

# LAGOS AND EBUTE-METTA DISTRICTS. TABLE I.

Birth and Death rates with Infant Mortality for the Years 1905 and 1906.

Year.			Death	Infai	cent, of o Births year of		
	Births.	Deaths.	rate per 1,000.	Total.	Under 5 years.	5 to 12 years.	Rate per Deaths to in first age.
1906. Lagos & Ebute-Metta	2,432	2,191	48.5†	1,149	1,046	103	34.9*
1905. Lagos & Ebute-Metta	2,535	2,458	55•3	1,420	1,319	101	41.0*

<sup>\*</sup>The number of deaths in Lagos in first year of age in 1905=951, Ebute-Metta 89, total 1,040 and in 1906, Lagos 763, and Ebute Metta 86, total 849.

For Births and Deaths rate per 1,000 calculated on the Vaccination Census, 1905, see Table Ia.

attached.

<sup>†</sup> Calculated on the basis of the Census of 1901, 39,387 plus average increase of 687 per annum as obtained during the decade 1891–1901 calculated on that basis as directed by His Excellency the Governor in his Memo. of 30th June, 1905.

#### TABLE IA.

## POPULATION AND VITAL STATISTICS, 1906.

## Rate per 1,000 of Population of Births and Deaths.

District of Lagos.	Population.	Births No. and rate per 1,000.	Deaths No. and rate per 1,000.
I. Lagos Island (and Harbour.) II.	42,822	$\frac{2,240^{*}}{52\cdot4}$ per 1,000.	1,908* 44.9 per 1,000.
Result of Vaccination Census 1905 in the Town of Lagos.	48,467	$\frac{2,240}{46\cdot 2}$ per 1,000.	1,9087 39·4 per 1,000.

<sup>\*</sup>By the Census of 1901, the population of the Town (and Harbour of Lagos) was 39.387 plus average increase of 687 per annum for 5 years 3.435 as obtained during the decade 1891-1901, calculated on that basis as directed by His Excellency the Governor in his Memo. of 30th June, 1905.

TABLE II.
Malarial cases.

Year.	Total number of Malarial cases recorded.	Total number of Native deaths from Malaria.	Total number of European deaths from Malaria.	Total number of deaths from Malaria among Euro- pean Officials only.
1906. Lagos & Ebute-Metta.	547	542	5	0
1905. Lagos & Ebute-Metta.	710	705	5	1

TABLE III.

Table showing Deaths in European from Malarial and Blackwater Fever, for the years 1905 and 1906.

	Government Officials.			European dents.	Total.		
Year.	Malarial Black- water Fever. Fever.		Malarial Black-water. Fever.		Malarial Fever. Black- water. Fever.		
1906. Lagos & Ebute-Metta	0	1*	5	3	5	4	
1905. Lagos & Ebute-Metta	1	2	4	0	5	, 2	

<sup>\*</sup>Contracted outside Lagos Town.

<sup>†</sup> Calculated on the Vaccination Census of 1905.

TABLE IV.

Total Deaths of Natives from Malarial Fever.

Year.	Malarial Fever.
1906. Lagos & Ebute-Metta	542
1905.	<b>∂</b> π⊿
Lagos & Ebute-Metta	705

TABLE V.

Return of Deaths from Bowel complaints in the years 1905 & 1906.

Year.	Dysentery.	Diarrhœa.	Total.		
1906. Lagos & Ebute-Metta	195	242	437		
1905. Lagos & Ebute-Metta	165	235	400		

TABLE VI.

Year.	Malarial.	Diseases of the Di- gestive system.	of the	Diseases of the Circula- tory system.	Tetanus.	Other diseases.	Total.
1906. Lagos & Ebute-Metta	547	320	583	21	12	708	2,191
1905. Lagos & Ebute-Metta	710	291	676	39	25	718	2,458

C. R. COLE,

Registrar of Vital Statistics.

Registry Office,
Colony of Southern Nigeria,
Lagos, 26th January, 1907.

#### 1906.

## LAGOS AND EBUTE METTA.

Population of Lagos	•••	• • •	• • •	• • •	• • •	•••	• • •	48,467
and of Ebute-Metta	, (accor	ding to	Vacci	nation	Census	1.905)	• • •	5,356
					Tota	al	• • •	53,823
Native	es	• • •	•••	• • •	• • •	•••	•••	2,178
$egin{aligned} \mathbf{Total} & \mathbf{Deaths} igg\{ egin{aligned} \mathbf{Native} \ & \mathbf{Europ} \end{aligned} \end{aligned}$	eans	• • •	• • •	• • •	•••	• • •	• • •	13
					Total		• • •	2,191
	Ma	laria		• • •			• • •	547
	T) :	.10-	tam	( Diarr	hœa .	• •	24	$\left\{ \begin{array}{c} 42 \\ 437 \end{array} \right\}$
	Ma R espir	atorysy	ystem	) Dysei	ntery .	• •	19	95
				Brone	chitis .	• •	5	44)
Chief Causes of Deaths {	Digesti	ve Syst	em -	Pneu	monia .	• •	• • •	18 > 564
Office Office of the section		•		( Pleur	chitis . monia . risy .	• •		2
				(Still	Births	• • •	1	11)
				Imm	Births aturity a	t Birt	hs (	$\begin{array}{c} 11 \\ 62 \end{array} \left\{ \begin{array}{c} 173 \end{array} \right.$
						otal		1,721
								,

- 1. It is interesting to note that but one death occurred from Cancer viz.:—Carcinoma of the Rectum; a Female, Native, age 65.
  - 2. It will be seen that among European Residents, the number of Deaths.

	OF	FICIAL.	Non-Official.
From Malaria was	•••	0.	5.
,, *Blackwater Fever was	• • •	1.	3.
,, Dysentery was	• • •	0.	1.

3 A very satisfactory record for the year.

REPORT BY THE DEPUTY PRINCIPAL MEDICAL OFFICER FOR THAT PERIOD DURING WHICH HE ACTED AS PRINCIPAL MEDICAL OFFICER.

SIR,

I have the honour to present my Report for the above named period namely from September 12th to end of the year.

The routine work of the Office was however carried on by Dr. Read, Senior Medical Officer, until the arrival from leave of the Principal Medical Officer.

#### WESTERN PROVINCE.

#### Movements of Officers.

#### Leave of Absence:—

Dr. Cole ... 4th October.

Dr. Mackinnon ... 5th November.

Dr. Jones ... 11th do.

Dr. Hiscock ... 5th February.

Dr. Currie ... 12th do.

Dr. Ryan ... 19th do.

#### From leave of Absence:—

Dr. Manners ... 24th October.

Dr. Chichester, s.m.o. ... 29th do.

Dr. Cole ... 3rd January.

Dr. Read ... 20th do.

Dr. Smith ... 4th February.

Dr. Roe ... 18th do.

Dr. Jones ... 21st do.

#### Promotions:—

Dr. Hopkins, to be Deputy Principal Medical Officer, December 16th.

Dr. Read, to be a Senior Medical Officer, December 16th.

#### New Appointments:

Dr. Catling ... 31st December.

Dr. Powell ... 28th January, 1907.

#### Invalidings:—

Mr. William Ralston, to Grand Canary, December 19th.

Dr. De Gruchy, to England permanently, January 20th, 1907.

#### Inspections.

I visited Badagry in October. At the time of my visit the Hospital was under repairs and painting. As a hospital it seems still little availed of by the inhabitants. They do not seem to like the idea of living upstairs.

It is a pity they do not appreciate it now as very serious injuries are often inflicted in this truculent District. Vaccination was being successfully prosecuted.

The Medical Officer was performing the duties of District Commissioner as well.

I visited Ibadan, November 5th to 7th, making a brief inspection of Aro and the Railway stations on the time as well.

The Barracks of the Southern Nigeria Regiment were in a very tidy and clean state.

The new latrines are a great improvement and the night soil was being properly disposed of.

The Barrack Dispensary was being well attended by soldiers, their wives, families and other people.

The Station Compound was clean but rather untidy due to the amount of railway material lying about.

The clearing of bush and long grass is a tedious and expensive matter, but as long as it exists along the approaches to the Station a nuisance must be the result.

There was a great improvement in the Construction Camps and its surroundings but I was rather disappointed to see the Clerks Quarters still there.

I believe in 1905 I laid particular stress on the danger to the European Staff the close proximity of these buildings.

As soon as they are removed one might safely consider the Railway Camp one of the best in this Province. Water was being laid on from a large tank and an abundant supply was expected.

The well was situated far from all source of pollution and I trust by now it has been enclosed by an unclimbable fence with a radius of at least 20 yards from the well centre.

The Town Dispensary was doing good work, the average daily attendance was then about 54. The natives seem to be placing much confidence in the European methods of treatment.

I did not see much of the Town itself but the little I did see showed it to be kept in a most sanitary state. The Medical Officer informed me that more was being done to keep it clean than formerly.

Some wells have also been sunk.

I took over the Base Hospital as completed and the necessary equipment has been supplied.

It was opened for the reception of patients on January 1st, 1907.

An Out-patient Department was started also.

The 2nd Medical Officer at Ibadan was thus detailed for duty with the Jebba-Zungeru Survey Party.

In order to centralise the out-patient work for the Medical Officer, who has long distances to travel, I made arrangement for the abolition of the Barrack and Construction Dispensaries. These are now merged into one at the Hospital.

I do not think much inconvenience is caused thereby to the sick of the Southern Nigeria Regiment.

A very much needed want is now being supplied in the shape of a small Native Hospital.

It will relieve a good deal of suffering which was undoubtedly inflicted by the long railway journey to Lagos Hospital of those who required Hospital treatment.

I noticed a good deal of improvement in the sanitary condition of the Railway Stations. Improvements take time to carry out, and cost money but I trust all these will be included in building the new stations on the Extension.

I visited Epe, Jebu Ode and Shagamu at Christmas.

At Epe the Hospital was doing all the work it could get and it seems to be appreciated by the people.

New Police Barracks were being erected behind the Prison and at a distance of about 200 yards from the District Commissioner's house.

I explained my ideas to the Commissioner about latrines, cooking and washing places.

The latrine ought to be a built structure of the same type as at Ibadan Barracks and situated at the end of a "blind" pathway. Cooking and washing places need only be palmleaf structures, each detachment erecting its own.

At Jebu Ode, Vaccination was being successfully carried.

At Shagamu, the Medical Officer had been removed as a temporary measure only.

Trivial dressings were being attended to by the Vaccinator.

At Ikorodu, a Vaccinator was stationed for it and the surrounding District.

The above three Stations were receiving regular and urgent visits from the Medical Officer at Epe.

A Medical Officer was detailed for Ondo on February 6th.

#### LAGOS HOSPITAL.

Lagos Hospital has as usual being doing good work amongst the natives. They especially appreciate surgical treatment. The European Ward was un-occupied once for about 14 days in October. There was only one death in it when I was acting. Dr. W. I. Taylor was Resident Medical Officer.

Yellow Fever. One isolated case of Yellow fever was reported at Dakar in September. Another in January at Grand-Popo. Necessary precautions were adopted in each case but Quarantine was not proclaimed.

Smallpox and Vaccination. Smallpox was not so prevalent in the Hinterland as in previous years and only one doubtful case came under the notice of the Health Officers in Lagos.

Malaria. Malaria was not very common and it was of a mild type. A good deal of slackness still exists amongst the European population about the taking of quinine and adopting precautions against Malaria.

Sanitary. A good deal of attention was paid to sanitary matter and there is a decided improvement in the cleanliness of the Town of Lagos.

Vital Statistics. They are included in the general yearly return and do not require any smaller from me.

The highest rainfall when I was acting occurred in October 6.37 inches.

#### CENTRAL PROVINCE.

#### Movements of Officers.

#### Leave of absence.

Dr. Collett, 15th September
Dr. Small, s.m.o., 23rd September
Dr. Smythe, 30th September
Dr. Adam, 4th November
Dr. Tipper, 15th November
Dr. Rendle, 5th February, 1907.

#### From leave of absence.

Dr. Bailey, 24th September
Dr. Phillips, 11th October
Dr. Thompson, 6th December
Dr. Graham, 18th December
Dr. Gray, 17th January, 1907.

#### Resignation.

Dr. Darker.

#### New appointment.

Dr. Newport, 18th January, 1907.

#### Invalidings.

Dr. Bate, 1st December.

The Quarantine Station at Forcados was finished while I was acting but unfortunately I was unable to inspect it as I had wished to do.

Owing to various reasons I was not able to visit any of the Stations of this Province.

#### EASTERN PROVINCE.

#### Movements of Officers.

Leave of absence.

Dr. Fagan, s.m.o., 15th January, 1907.

Dr. Best, s.m.o., 19th February, 1907.

Dr. Burgess 9th February, 1907.

From Leave of absence.

Dr. Caldwell, 25th September, 1907.

Dr. Fletcher, 30th January, 1907.

New appointments.

Dr. Wilson, 28th January, 1907.

Dr. Robinson, 28th January, 1907.

Promotions.

Dr. Best to be as S.M.O., November 10th.

Invalidings.

Dr. Moore.

Dr. Chichester, s.m.o., relieved Dr. Fagan, s.m.o., and took charge of the Eastern Province.

I visited Calabar in January arriving there on the 19th. I was much struck with the situation of the Government Quarters and the way in which the Hill is laid out.

Twice I inspected the Native Town in conjunction with the Provincial Engineer; also the Waterworks. I was very much impressed by the latter.

On several occasions I inspected the European and Native Hospitals. The second Medical Officer was in Hospital at the time so all the work devolved on the Senior Medical Officer. I also inspected the Prison, Lunatic Asylum, and Contagious Diseases Hospital.

I left Calabar on the 24th January and arrived at Bonny next day. Owing to limited time I did not see much of the place. The Medical Officer was away on an Expedition so the Senior Medical Officer at Egwanga was paying weekly visits. I arrived back in Lagos on January 27th.

I have the honour to be,

Sir,

Your obedient Servant,

F. G. HOPKINS, M.D.

Deputy Principal Medical Officer.

MOVEMENTS, MEDICAL DEPARTMENT, SOUTHERN NIGERIA, FROM 1ST MAY, 1906.
WESTERN, EASTERN AND CENTRAL PROVINCES.

- Dr. W. A. Cole, Medical Officer, Badagry, on Vaccination Inspection duty, Railway Line, 1st August to 22nd September; granted three months' vacation leave, 4th October to 3rd January.
- Dr. J. A. Clough, Medical Officer, Lagos Railway Oshogbo Extension Survey Party, returned to Head-quarters 6th January, attached to General Medical and Sanitary Work, Lagos Town, 8th January. Resident Medical Officer, Lagos Hospital, 21st January; Medical Officer of Health, West District, 1st February; Medical Officer of Health, East District, 7th August; to Europe on leave 14th October.
- Dr. J. A. Pickels to Head-quarters from Ibadan, 15th February; to Europe on leave 18th February; from leave 5th August; Medical Officer, Ibadan Station and Railway District No. 3, 8th August.
- Dr. C. J. Lumpkin, Medical Officer, Massey Street Dispensary, granted one week's leave of absence 24th to 30th September.
- Dr. W. H. G. H. Best from leave of absence 9th January; proceeded to Ilesha to resume Medical charge 12th January; to Head-quarters 11th July; proceeded to the Eastern Province to assume Medical charge of Omoduru and Owerri Stations 30th July; to Egwanga 24th October. Promoted Senior Medical Officer vice Dr. Rutherford 10th November.
- Dr. H. R. Ellis to Europe on leave 11th February; from leave 22nd July; Medical Officer, Badagry, 25th July.
- Dr. J. D. Finlay from leave of absence 19th March; Medical Officer, Aro, 23rd March; to Head-quarters 3rd October; attached to East District, Lagos, 4th October; Medical Officer of Health, East District, 13th October; Medical Officer. Southern Nigeria Regiment West African Frontier Force, 1st November; proceeded to the Hinterland on Vaccination inspection tour, 21st November to 26th December; Medical Officer of Health, East District.
- Dr. C. C. Adenivi Jones, Medical Officer, Epe, to Head-quarters for Medical treatment 27th June; to Epe 15th August; granted three months' vacation leave from 11th November.
- Dr. P. Phillips, Medical Officer, Ikorodu-Shagamu, returned to Head-quarters 22nd March; attached to General Medical and Sanitary Work, Lagos Town, 23rd March; to Europe on leave 15th April; returned from leave and assumed duty at Sapele 11th October.
- Dr. E. H. Read, Medical Officer of Health, East District, to Europe on leave 19th August. Promoted Senior Medical Officer 16th December vice Dr. Hopkins.
- Dr. W. Thomson, Medical Officer, Aro, to Europe on leave 25th March. Died on board the S.S. Akabo 9th April.
- Honourable Dr. H. Strachan, C.M.G., Principal Medical Officer, to Badagry on inspection duty 19th June; to Head-quarters 21st June. Appointed Principal Medical Officer, Amalgamated Provinces, Southern Nigeria, 1st May. To Aro on visit of inspection 26th June; to Head-quarters 27th June. To Calabar, on visit of inspection 2nd July; to Head-quarters 24th July; to Europe on leave of absence 12th September.
- Dr. F. G. Hopkins, Senior Medical Officer and Medical Officer of Health, East District, to Europe on leave 11th February; from leave 13th August; acted as Principal Medical Officer from 12th September to end of year. To Badagry on inspection duty 10th October; to Head-quarters 11th October; to Ibadan 5th November; to Head-quarters. Promoted Deputy Principal Medical Officer 10th December 1906. To Epe 24th to 30th December.
- Dr. J. Currie from leave of absence 5th February. Resident Medical Officer, Lagos Hospital, 10th February. Medical Officer of Health, West District, 7th August.
  - Dr. J. D. Small, Senior Medical Officer, Warri, to Europe on leave 23rd September.

- Dr. R. H. Brierley from leave of absence 12th February; Medical Officer, Ibadan, 15th February; to Head-quarters 15th August; Third Medical Officer, Lagos, and Medical Officer, Southern Nigeria Regiment, West African Frontier Force, 26th August; proceeded with troops to Oka Expedition 21st September to 14th October. Left Head-quarters to assume Medical charge of Agbor and Ishan Districts 18th October.
- Dr. W. F. Macfarlane from leave of absence 19th March. Medical Officer, Ebute-Metta, Yaba Leper Asylum and Railway District No. 1, 20th March.
- Dr. D. Mackinnon Medical Officer, Ebute-Metta, assumed Medical charge of Ikorodu-Shagamu District 23rd March; to Europe on leave 5th November.
- Dr. J. S. Smith, Medical Officer, Southern Nigeria Regiment, West African Frontier Force, Lagos, proceeded to Northern Nigeria, Sokoto Expedition, 20th February to 6th April; on leave of absence 26th August.
- Dr. C. R. Chichester, Senior Medical Officer, Onitsha, proceeded to Europe on leave 26th May; from leave 29th October; Senior Medical Officer and Medical Officer of Health, East District, Lagos. Medical Officer, Southern Nigeria Regiment, West African Frontier Force, 19th November; proceeded to Calabar to relieve Dr. Fagan, 31st December.
- Dr. R. C. Hiscock, Medical Officer, Lagos Railway, Oshogbo Extension Survey Branch, to Head-quarters 3rd October; to Ilesha to assume Medical charge of that District 11th November.
- Dr. W. I. Taylor, Resident Medical Officer, Lagos Hospital, to Europe on leave 21st January; from leave 5th August.
- Dr. J. C. Ryan newly appointed Medical Officer arrived in the Colony and assumed duty on 1st February. Left Head-quarters on 5th February to assume Medical charge of the Lagos Railway Oshogbo Extension 17½ Mile Camp.
- Dr. O. Sapara, Medical Officer, Ereko Dispensary, granted three months' vacation leave 1st March to 31st May.
- Dr. T. C. Caldwell, Medical Officer, 17½ Mile Camp, proceeded to Europe on special leave 2nd July; resumed duty at Calabar, 26th September.
- Dr. A. N. DeGruchy, newly appointed Medical Officer, arrived from Enrope and assumed duty 22nd July. Medical Officer, Lagos Railway Oshogbo Extension, 30th July; proceeded to Aro to assume Medical charge of that station; to Head-quarters for Medical treatment 17th October; to Aro 27th October.
- Dr. E. J. Tynan, newly appointed Medical Officer, arrived from Europe and assumed duty on 3rd September. Medical Officer, Lagos Railway Oshogbo Extension, Ibadan, 12th September. Proceeded with the Jebba-Zungeru Survey Party, 28th December.
- Dr. J. Cross, newly appointed Medical Officer, arrived in the Colony and assumed duty on 3rd September; left Head-quarters on 11th September to take Medical charge of Survey Party, Lagos Railway Oshogbo Extension.
- Dr. W. F. Manners, Medical Officer, Egwanga, proceeded to Europe on leave 4th May; returned from leave and assumed duty in the Western Province 24th October; Medical Officer, Epe, 30th October to end of year.
- Dr. P. H. MacDonald, newly appointed Medical Officer, arrived in the Colony on 25th May and assumed duty at Bende.
- Dr. G. J. Rutherford, Senior Medical Officer, Egwanga, proceeded on leave 1st June. Appointed to Gold Coast 10th November, 1906.
- Dr. J. B. Bate returned from leave of absence on 28th May and resumed duty at Onitsha; to Europe on sick leave 1st December.
- Dr. A. H. Hanley, C.M.G., Deputy Principal Medical Officer, acted as Principal Medical Officer, Eastern and Central Provinces, Southern Nigeria, 1st May to 10th June; on leave to Europe 26th July.
  - Dr. W. Fletcher, D.S.O., proceeded to Europe on sick leave 29th June.
  - Dr. E. W. Graham on leave to Europe 23rd June; returned from leave on 26th

- November and resumed duty at Benin City. Medical Officer, Onitsha, 18th December vice Dr. Bate.
- Dr. G. F. Darker, Medical Officer, Sapele, proceeded to Europe on leave 3rd June. Resigned 19th December.
- Dr. E. J. Moore, returned from leave of absence on 8th July and resumed duty at Calabar. Invalided 4th October.
- Dr. R. L. Roe, Medical Officer, Benin City, proceeded to Europe on sick leave 18th August.
- Dr. M. E. O'dea returned from leave of absence on the 28th May and resumed duty at Obubra Hill. Medical Officer, Degema, 8th October.
- Dr. R. Laurie, Medical Officer, confirmed in his appointment on 23rd April. Proceeded to Europe on leave of absence, 24th August.
- Dr. J. W. Collett, Medical Officer, Onitsha, proceeded to Europe on leave of absence 15th September.
- Dr. T. E. Frazer Toovey, Medical Officer, Ikot-Ekpene, proceeded to Europe on leave of absence 6th September.
- Dr. A. W. S. Smythe, Medical Officer, Forcados, proceeded to Europe on leave of absence 30th September.
- Dr. F. B. Thompson, Medical Officer, Bende, proceeded to Europe on leave 14th June; returned from leave of absence on the 6th December and resumed duty at Benin City and Ifon.
- Dr. J. C. M. Pailey, returned from leave of absence on the 24th September and resumed duty at Forcados.
- Dr. J. A. Gordon-White returned from leave of absence on 5th August and resumed duty at Akassa.
- Dr. E. H. Tipper, Medical Officer, Benin City and Ifon, proceeded to Europe on leave of absence 15th November.
- Dr. E. J. Kelleher, returned from leave of absence on the 12th September and resumed duty at Warri.
- Dr. A. R. Rendle, newly appointed Medical Officer, arrived on the 2nd February and assumed duty at Aboh.
- Dr. J. P. Fagan, Senior Medical Officer, returned from leave of absence on the 6th January and resumed duty at Calabar.
- Dr. G. Hungerford, returned from leave of absence on the 13th February and resumed duty at Aboh. Medical Officer, Egwanga, 4th May, Medical Officer, Owerri, 6th November.
- Dr. J. B. Tombleson, returned from leave of absence on the 24th May, and resumed duty at Owerri; Medical Officer, Asaba, 28th August.
- Dr. A. J. A. Browne returned from leave of absence on the 24th May and resumed duty at Brass.
- Dr. D. A. Ashton, returned from leave of absence on the 31st August and resumed duty at Obubra Hill.
- Dr. T. B. Adam, Medical Officer, Sapele, proceeded to Europe on leave of absence 3rd November.
- Dr. H. Catling, newly appointed Medical Officer, arrived in the Colony and assumed duty in the Western Province 31st December.

# RETURN OF VACCINATION IN LAGOS TOWN AND THE HINTERLAND FOR THE YEAR 1906.

DISTRICT.	Janua		ul cases. ecember, ated and		Total. Successful for	Total number vaccinated, (including unsuccessful and	
	4	3	2	1	the year 1906.	"result not known.")	
Lagos Ebute Metta Railway Lines Lagos Villages Ibadan Oyo Jebu Ode Badagry Ikorodu Shagamu Shaki Ilesha Ondo Iseyin Epe Iwo Meko	2,906 447 740 1,024 283 1,034 4,759 1,489 1,227 3,499 2,046 4,036 2,218 661 4,216 61 2,291	1,290 140 386 395 170 980 1,731 493 408 705 2,015 1,376 1,293 535 1,526 26 862	1,014 117 293 99 121 358 923 287 451 490 1,707 1,489 868 510 894 61 490	551 74 179 16 52 337 463 153 151 295 445 769 533 221 678 39 94	5,761 778 1,598 1,534 626 2,709 7,876 2,422 2,237 4,989 6,213 7,670 4,912 1,927 7,314 187 3,735	9,416 1,129 2,015 2,226 1,182 4,978 1,3342 3,100 3,342 6,925 8,322 9,992 6,243 4,921 10,591 298 5,159	

Percentage of the Successful Cases ...

Do. Unsuccessful Cases ...

67.06 per cent.

32.94 per cent.

RETURN OF SUCCESSFUL VACCINATIONS PERFORMED IN THE EASTERN
AND CENTRAL PROVINCES DURING 1906.

	DI	STRIC	CT.		No.	REMARKS.
Calabar Afikpo Obubra Hill Bende Ikot-Ekpene Egwanga Degema Owerri Brass Akassa Bonny Forcados Warri				 	476 109 596 502 49 914 539 351 536 691 709 423 1,318	No. M.O. resident here for many months.
Sapele Benin City Ifon Asaba Onitsha Aboh Agbor and Is	    shan	Cotal		 	2,717 5,104 513 1,397 1,008 1,220 41	New District.

#### WARRI DISTRICT.

The estimated population of the entire district is 50 Europeans and 300,000 natives. The population of Warri, the Government Capital, is about 500 and includes four-fifths of the Europeans in the district.

Nothing abnormal was noted in the meteorological conditions during the year.

Malarial fever was prevalent among all Europeans but was of a mild type and no deaths occurred. Four cases of haemoglobinuric fever in Europeans are recorded, all terminating favourably. It is worthy of note that all four cases occurred in persons of German nationality in the employment of a commercial firm. A fatal case of poisoning by chlorodyne occurred emphasising the necessity for control of the Sale of poisonous drugs to the public. Only 3 cases of beri-beri occurred contrary to the previous year in which an outbreak of the disease in the prison and to a small extent elsewhere took place. The prevalence of Small-pox in some of the country districts during the latter half of the year did not extend to the town suburbs.

The sanitary condition of the chief town Warri is well regulated. The other towns are kept according to Native ideas and except in a few instances are without Sanitation as understood by more civilized peoples. No precautions are taken against fly and water-bourne disease.

Changes following amalgamation of Southern Nigeria with Lagos made Warri the seat of government and capital town of a Province and in order to cope with its increasing importance and rapidly increasing population the old town which was very insanitary and situated too close to the European reservation was totally razed to the ground and the gigantic task begun of building a New Warri Town on another site.

Government efforts and private enterprise, with the enthusiastic support of the inhabitants, have in the space of twelve months accomplished wonders and New Warri is to day built to a very large extent and is daily growing bigger. The town is laid out on approved modern lines with wide streets and open squares. Great care was exercised in the selection of the site, and surface drainage is good. The water supply is good and abundant, and public conveniences are provided.

An immense race-course is being prepared. New Public Schools have been put up by Government and are well attended. Church services are held in temporary buildings pending the construction of new edifices. Several European commercial firms have branch premises in the New Town.

For the large increase of Government staff numerous dwellings have been built according to modern ideas on Tropical housing and a number of others are in construction and planned.

Successful vaccinations to the number of 1,166 are recorded. This does not include large numbers of successful vaccinations in remote country parts of which records cannot be accurately kept. The population of Warri itself is well protected by vaccination and efforts are being made to increase the proportion of "protected" persons in other towns of the district.

## RETURN OF DISEASES AND DEATHS IN 1907 AT WARRI.

Option	2.0	TAT C	OI OI		1110110 111	ND DEATI	10 111			
	DISEAS	Es.			Remaining in Hospital at end of	Yearly To	otal.	Total Cases	Remain- ing in Hospital	REMARKS.
					1:05.	Admissions.	Deaths.	Treated.	at end of 1906.	
GENERAL DISEASES.	Small-pox Measles Typhus Dengue Influenza Diphtheria Febricula Enteric Fever Cholera Dysentery Yellow Fever Plague Malarial Fever  (a) Intermitten  (b) Remittent (c) Pernicious Beriberi Erysipelas Pyæmia Septicæmia Tetanus Tubercle Leprosy (a) Tubercular (b) Anæsthetic Yaws Haemoglobinuric Syphilis (a) Primary (b) Secondary (c) Inherited Gonorrhæa Hydrophobia Scurvey Alcoholism Delirium Tremens Rheumatism Rheumatism Rheumatic Fever Gout New Growth, nor New Growth, mali Anæmia Diabetes mellitus. Diabetes insipidus Debility	Feve	alignant	• • •			12	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		
	Carried forward	ard		•••	4	677	15	681	4	

## RETURN OF DISEASES AND DEA'THS IN 1907 AT WARRI.

						n	
	DISEASES.	Remaining in Hospital at end of	Yearly To	otal.	Total Cases	Remain- ing in Hospital	REMARKS.
		1905.	Admissions.	Deaths.	Treated.	1906.	
Bro	ought forward	4	677	15	€81	4	
n 1.	/ Neuritis Meningitis		1		1	• • •	
sectio	Hydrocephalus	• • •	•••				
s-qnS	Abscess of Brain	•••	•••				
		* * *	• • •			•••	
	Functional Nervous Disorders;—						
on 2.	Apoplexy Paralysis				• • •  -  -		
secti	Chorea		3	• • •	3		
-qn	Neuraigia		10		10		
02	(Hysteria	1	4	•••	2		
	Mental Diseases:—	· ·					
	Idiocy Mania	• • •					
secti	/ Melancholia		·		 1		
Sub-s	Delusional Insanity	•••					
				4			
	T	• • •	$\begin{array}{c} 65 \\ 26 \end{array}$		$\frac{65}{26}$	•••	
"	,, Nose	• • •				1	
"	" Haemorrhoids …		6		6		
"		1	$\frac{312}{272}$	2	$\begin{array}{c} 312 \\ 273 \end{array}$	3	
"	,, Hernia		6	• • •	6		
"	,, Lymphatic System ,, Urinary System	• • •	20	• • •	20	•••	
"			27		27	1	
	Female Organs Organs of Loco-						
"	motion	i • • •	14		14		
"	Abengana	4	89		93	$\frac{1}{2}$	
"	,, Ulcers	• • •	$\frac{283}{259}$		$\frac{283}{259}$	14	
"	,, Skin ,, Caries of dentine		11		11		
	ried forward	9	2101		2110	26	
	Sub-section 3. Sub-section 2. Sub-section 1.	Brought forward  Diseases of the Nerves:—    I	Brought forward 4  Diseases of the Nerves:—  Neuritis	DISEASES.   in Hespital at end of 1905.   Admissions.	DISEASES.   in Hospital at end of 1905.     Admissions.   Deaths.	DISEASES.	DISEASES.   In Respital at each of 1995.   Admissions.   Dealts.   Total Clases Trented.   Admissions.   Dealts.   Total State of 1996.     Admissions.   Dealts.   Total State of 1996.

## RETURN OF DISEASES AND DEATHS IN 1907 AT WARRI.

DISEA	SES.			Remaining in Hospital at end of	Yearly T	Potal.	Total Cases	Remain- ing in Hospital	REMARKS.
				1905.	Admissions.	Deaths.	Treated.	at end of 1906.	
Brought for	rward			9	2,101	18	2,110	26	
Injuries, Local	• • •	• • •	• • •	6	359	•••	365	4	
Surgical Operations				•••	•••	• • •	•••	•••	
Malformations				•••	•••		•••		
Poisons	• • •	•••		•••		•••		•••	
Ptomaine			• • •	•••	4	•••	4	•••	
Chlorodyne	10.0	•••	• • •	•••	1	1	1	• • •	
Parasites	• • •	• • •	•••	•••	•••	• • •	•••	•••	
Filaria Medinensis	• • •	• • •	•••	•••	6	•••	6	•••	
Filaria Loa	•••	• • •	•••	•••	6	• • •	6	•••	
Ascarides Lumbricoi	des	• • •	•••	•••	11	• • •	11	•••	
Pulex Penetrans	• • •	• • •		•••	4	• • •	4	•••	
Acarus Scabies	• • •	• • •	• • •	•••	8		8	•••	
Myiasis	• • •	• • •	•••	• • •	3	•••	3	• • •	
Total	•••	•••	•••	15	2,503	19	2,518	30	

le de la

C. J. KELLEHER,

Medical Officer,—Warri.

#### CALABAR DISTRICT.

The Principal Medical Officer,

Lagos.

I herewith attach the yearly Medical Report for the District of Calabar, including reports of the European and Native Hospitals—the details as recorded speak for themselves.

- 2. As a summary I might mention that during the past year there were 163 cases treated in the European Hospital, of the number, one died, and 23 were invalided, 18 to Europe and 5 on a sea trip to Canary.
  - 3. In the Native Hospital the number of cases treated were,

Intern-798, deaths 44

Extern-7,129, no deaths.

- 4. Vaccination is carried out under the orders of the District Medical Officer and the people are eager in seeking the immunity from Small-pox which this confers.
  - 5. The average European of Calabar for the year 1906, was 134.
- 6. The water supply continues most satisfactory and is highly appreciated. Report of Analysis of water attached.
- 7. During the year the maximum shade temperature recorded was 93.22, the minimum 69.74- January, February, March are the hottest months of the year. The mean temperature for the year was 80.40.

Total rainfall for the year was 157.34 and the mean degree of humidity was 85.09.

J. P. FAGAN,
Senior Medical Officer.

## INTERN EUROPEAN HOSPITAL, CALABAR.

TABLE I.

RETURN OF DISEASES AND DEATHS IN 1906, AT CALABAR.

	DISEAS	SES			Remaining in Hospital at end of 1905.	Yearly Z	Deaths.	Total Cases Treated.	Remain- ing in Hospital at end of 1906.	REMARKS
Small-por	Σ									
Measles										
Typhus										
Dengue	• • •		• • •			,				
Influenza					• • •	$\frac{3}{2}$		3		
Filarial I					•••	3		3		
Diphtheri Febricula				• • •	• • •	• • •	• • •	• • •	• • •	
Enteric I					• • •			•••	•••	
Cholera	•••									
Dysenter						1	1	1	• • •	
Yellow F	ever							• • •	• • •	
Plague			• • • • • • • • • • • • • • • • • • • •				• • •		• • •	
Malarial	Fever					62		62		
		-	Quotidian Tertian	• • •	• • •	11		11		
			Quartian			11	• • •		•••	
(a) In	termitter	$\mathrm{at} \ \langle$	Irregular			7	• • •	7		
			Type un-			·		•		
			diagno	sed.	• • •				• • •	
. \	mittent									
\ /	rnicious	• • •				8	8			
Beriberi		• • •	• • • •	• • •					1	
Erysipela				• • •		•••		• • •	•••	
Pyæmia   Septicæm	 via	• • •		• • •		•••	• • •		• • • • • • • • • • • • • • • • • • • •	
Tetanus				• • •	• • •	• • •	• • •	• • •	•••	
Tubercle							1		• • •	
Tetanus Tubercle Leprosy										
(a) Tu	bercular								• • •	
	esthetic	·								
Yaws		• • •	• • • • • • • • • • • • • • • • • • • •	• • •						
Syphilis				• • •		• • •				
	imary condary					• • •	• • •	* * *	•••	
	nerited				•••	•••	• • • •		•••	
Gonorrho							• • •		•••	
Hydroph									1	
Scurvy	• • •								•••	
Alcoholis		٠.						· · ·	•••	
Delirium			• • • • • • • • • • • • • • • • • • • •	٠.,	• • •		• • •		• • •	
Rheumati		• •		• • •	• • •	5		5	• • •	
Rheumati		• • •		• • •	•••		• • •		• • •	
New Grov	vth, non	-m				1	•••	1	***	
New Grov						•••		• • •	•••	
Anaemia		^D*		• • •	• • •	6		6		
Diabetes	mellitus			• • •						
Diabetes			* * *							
Debility	•••		• • •			3		3	• • •	
	Corre	100	l Forward			110		110		
	Carr	iec	rrorward			110	1	110	1	

		DISEASES.	Remaining in Hospital at end of	Yearly T	otal.	Total Cases	Remain- ing in Hospital	REMARKS.
			1905.	Admissions.	Deaths.	Treated.	at end of 1906.	
		Brought Forward  Diseases of the Nerves—		110	1	110	1	
Overnow	STEM.	Neuritis Meningitis Myelitis Hydrocephalus Enciphalitis Abscess of Brain Congestion	   	— — — — —		•••		
ASES.		Functional Nervous Disorders—		3	_	3	• • •	
	SEASES OF THE INER	Apoplexy Paralysis Chorea Epilepsy Neuralgia Hysteria		— — — —			•••	
Draw		Mental Diseases—  State of Idiocy  Mania  Melancholia  Dementia  Delusional Insanity	 	— — — —		•••		
LOCAL DISEASES.		, , , Circulatory System , , , Respiratory System , , Digestive System , Lymphatic System , Urinary System	1   1  	2 2  1 3 17 2 2 2		3 2  1 3 18 2 2 2	1	
	? ?: ?:	, ,, Organs of Locomotion. , ,, Cellular Tissue		$\begin{array}{c c} & 1 \\ & 7 \\ 2 \end{array}$		7 2		
,, Surgi	cal orm: ns	General Local Operations ations		3 - -  1		3   1 1	. —	
		Total	2	161	1	163	2	

J. P. FAGAN, Senior Medical Officer—Calabar.

TABLE II.

# SHEWING EXTERN PATIENTS TREATED AT EUROPEAN HOSPITAL, CALABAR.

DISEA	SES			Remaining in Hospital at end of	Yearly Total.		Total Cases	Remain- ing in Hospital	REMARKS
				1905.	Admissions.	Deaths.	Treated.	at end of 1906.	
Small-pox		• • •	• • •	•••	• • •	• • •	•••		
Measles	• • •		• • •	• • •	• • •	•••	• • •	•••	
Typhus	• •	• • •	• • •	• • •	• • •	•••	• • •	•••	
Dengue Influenza	•••		•••	•••	1	•••		•••	
Diphtheria	•••		• • •	•••		•••	1	•••	
Febricula	•••		• • •	• • •	3	• • •	3	•••	
Enteric Fever	•••		•••	•••	(* *	•••	• •	•••	
Cholera	• • •	•••	• • •	•••	• • •	••	•••	•••	
Dysentery Yellow Fever	•••		•••	• • •	• • •	•••	•••	•••	
Plague	•••		• • •	•••	• • •	•••	•••	•••	
Malarial Fever	•••		•••	•••	5	• • •	5	•••	
		(Quotidian	•••	•••	6	•••	6	•••	
		Tertian	•••	•••	3	•••	3	•••	
(a) Intermitte	ent	Quartian Imagular	• • •	•••	• • •	•••	•••	• • •	
		Irregular Type un-	•••	•••	11	•••	 11	•••	
		diagnos	ed.	•••		•••	11	•••	
(b) Remittent		•••	•••	•••	• • •	• • •	• • •	•••	
(c) Pernicious	•••	•••	• • •	• • •	4	• • •	4	•••	
Beriberi	•••		•••	• • •	• • •	• • •	• • •	•••	
Erysipelas Pyæmia	* * *		•••	• • •	• • •	•••	• • •	•••	
Septicæmia	• • •		•••	•••	•••	• • •		•••	
Tetanus	•••		• • •	•••	•••	• • •	• • •	• • •	
Tubercle	•••	•••	•••	•••	• • •	• • •	• •	•••	
Leprosy	•••		• • •	• • •	• • •	•••	•••	•••	
(a) Tubercular (b) Anæstheti			•••	•••	• • •	•••	• • •	• • •	
Yaws	•••		•••	•••	• • •	• • •	•••	• • •	
Syphilis	•••		•••	•••	1	•••			
(a) Primary	•••	•••	•••	•••	• • •	•••	• • •	•••	
(b) Secondary			• • •	• • •	• • •	•••	• • •	•••	
(c) Inherited Gonorrhea	•••		•••	• • •	] ]	•••	•••	•••	
Hydrophobia	•••		•••	• • •	•••	•••	•	•••	
Schryy	•••		•••	•••	•••	•••	• • •	•••	
Alcoholism			• • •	•••	• • •	•••	• • •	•••	
Delirium Tremer		•••	•••	•••	•••	•••	• • •		
Rheumatism Rheumatic Feve			• • •	•••	18	•••	18	•••	
Gout	T		• • •	•••	- • •	•••	• • •	•••	
New Growth, no			•••	•••	•••	•••	• • •	•••	
New Growth, ma	align	nant	•••	•••	•••	•••	1 • •	•••	
Anæmia	• • •	•••	•••	•••	9	•••	9	•••	
Diabetes mellitu			•••	•••	•••	•••	• • •	•••	
Diabetes insipide Debility	us 	•••	•••	•••	51	•••	 51	• • •	
	•••	• • •	•••	•••	1)1	• • •	91	•••	

	DISEASES.	Remaining in Hospital	Yearly T	otal.	Total Cases	Remain- ing in Hospital	REMARKS.
		at end of 1905.	Admissions.	Deaths	Treated.	at end of 1906.	
	Brought forward		112	• • •	112 	•••	
Ι	Diseases of the Nerves—	•••	•••	• • •	• • •	• • •	
	Neuritis Meningitis	•••	•••	•••	• • •	• • •	
	Myelitis  Hydrocephalus  Encephalitis  Abscess of Brain  Congestion of Brain	•••		•••	• • •	• • •	
SYSTEM.	Abscess of Brain Congestion of Brain	•••	•••	•••	•••	•••	
$\Omega$	Functional Nervous Disorders—						
ISEASE	Apoplexy Paralysis	•••		•••	• • •	• • •	
	Chorea	•••	•••	•••	•••	•••	
LOCAL ES OF TH	Epilepsy Neuralgia	•••	 5	•••	 5	• • •	
LO	Ø (Hysteria	•••	•••	•••	•••	•••	
DISE	Mental Diseases—						
	Idiocy Mania	•••	• • •	• • •	•••	• • •	
	Melancholia	•••	•••	•••	•••	•••	
	$ \begin{array}{c}                                   $	•••	•••	•••	• • •	• • •	
Dise	eases of the Eye	•••	1	• • •	1	• • •	
	,, ,, Ear ,, ,, Nose	• • •	9	• • •	9		
v <u>i</u>	,, ,, Circulatory System ,, ,, Respiratory System	• • •	$egin{pmatrix} 2 \\ 26 \end{bmatrix}$	•••	$\frac{2}{26}$	• • •	
DISEASES	" " Digestive System	•••	72	•••	72	•••	
)ISE	,, ,, Lymphatic System Urinary System	•••	$\frac{1}{4}$	•••	$\begin{vmatrix} 1 & 4 \end{vmatrix}$	• • •	
	", ", Generative System	• • •	• • •	•••	•••	• • •	
Local	Male Organs Female Organs	•••	$\frac{1}{2}$	•••	2	•••	
H	,, ,, Organs of Locomo-	• • •	• • •	•••	***		
	,, ,, Cellular Tissue ,, ,, Skin	•••	9 37	• • •	9 37	• • •	
Injuries,	, General	•••		•••	•••	•••	
,,	Local		8	•••	8	•••	
Surgical Malform	Operations	•••	•••	• • •	• • •	•••	
Poisons		•••	• • •	• • •		•••	
Parasites	s	z • •	2	•••	$\frac{2}{2}$	•••	
	Total	•••	290	•••	290	•••	

J. P. FAGAN,
Senior Medical Officer.

TABLE III. SHEWING INTERN PATIENTS TREATED AT NATIVE HOSPITAL, CALABAR.

DISEA	SES.			Remaining in Hospital at end of	Yearly T	otal.	Total Cases	Remain- ing in Hospital	REMARKS
				1905.	Admissions.	Deaths.	Treated.	at end of 1906.	
Small-pox								•••	
Varicela					9	2	9		
Measles								•••	
Typhus		• • •		1	•••		• • •	•••	
Dengue Influenza	• • •	• • •			5	• • •	5	•••	
Diphtheria								•••	
Febricula					2		2	2	
Enteric Fever			• • •		• • •		• • •		
Cholera	•••	* * *	• • •					•••	
Dysentery Yellow Fever	• • •	• • •	•••		28	$\frac{1}{2}$	28	1	
Plague		• • •					• • •	•••	
Malarial Fever	• • •	• • •		2	30	3	32	• • •	
	j	Quotidian			11		11		
		Tertian	• • •		6		6		
(a) Intermitte	nt	Quartian	• • •				•••		
		Irregular	•••		44		44		
		Type un- diagnos	sed.						
(b) Remittent	•••	•••					•••		
			•••				• • •	•••	
Beriberi	• • •	• • •	• • •			•••		• • •	
(c) Pernicious Beriberi Erysipelas Pyæmia	• • •		• • •		1	•••		•••	
Cantiammia			• • •	• • •		1	1	• • •	
Tetanus		• • •		• • •	1	ı î	1	•••	
Tubercle						• • •	* * *	• • •	
Leprosy				• • •	3	• • •	3	•••	
(a) Tubercula (b) Anæstheti		• • •	• • •		•••		• • •	• • •	
Yaws		• • •		* * *	5		5	•••	
Syphilis		• • •	• • •	• • •	14		14	•••	
(a) Primary					1		1		
(b) Secondary	·				1		1	•••	
(c) Inherited Gonorrhea		• • •		* * *	17	•••	17	1 1	
Hydrophobia	• • •	• • •		•••	17		1.7	1	
Scurvy	• • •	• • •			• • •		•••	• • •	
Alcoholism				ĭ	1		2		
Delirium Tremer									
Rheumatism Rheumatic Feve	···	• • •	• • •	3	67	•••	70	3	
Gout		•••	• • •	* * *		1	•••	•••	
New Growth, no					• • •		• • •	•••	
New growth, ma	lign	ant					•••		
Antemia			• • •		• • •	•••	• • •	•••	
Diabetes mellitus		• • •	• • •	•••	• • •	•••	• • •	0 14 7	
Diabetes insipided Debility			•••	•••	5	1	5	•••	
			• • •	•••			0	•••	
Total				6	252	13	258	6	

		DISEASES.		Remaining in Hospital at end of	Yearly T	otal.	Total Cases	Remaining in Hospital	REMARKS.
				1905.	Admissions.	Deaths.	Treated.	at end of 1906.	
Bı	ough	t Forward	•••	6	252	13	258	6	
	D	iseases of the N	erves—						
	( .	(Neuritis			(			• • •	
	1	Meningitis	•••	• • • •				• • •	
	tion	Myelitis Hydrocephalu	 IS	•••	•••			•••	
	Sub-section	Encephalitis	•••	•••	• • •		• • •	•••	
	-qns	Abscess of Br			• • •		•••	• • •	
SM.	02	Congestion of	Brain	•••	• • •		•••	•••	
JS SYSTEM.		Functional Ner Disorders-				-			
E NERVOUS 6	\csi	Apoplexy	•••	•••	•••			•••	
NE	ion	Paralysis Chorea	•••	•••		•••	• • •	•••	
)	ecti	Epilepsy	•••	•••	2	2	$\frac{1}{2}$		
TE	Sub-section	Neuralgia	•••	•••		•••	, , ,	•••	
S OF TH	Su	Hysteria	•••	•••	•••	•••	•••	•••	
DISEASES		Mental Disease	es—		1				
J A	က်	(Idiocy	•••	•••	•••	•••	•••	•••	
	tion	Mania	•••	•••	•••	•••	•••	•••	
	Sub-section	Melancholia Dementia	•••		•••				
	-Qn	Delusional In	sanity	•••		•••	•••	•••	
	$\infty$								
D	iseas	es of the Eye	•••	•••	24		24 5	2	
	"	" Ear " Nose		•••	5 1	• • •	1	•••	
	"	,, Circulat	ory System	1	22	$\frac{3}{9}$	23 65	2	
ES.	"	Digestia	tory System ve System	$\frac{3}{2}$	62 58	7	60	1	
DISEASES.	)) ))	" Lympha	atic System	1	14	1	15	1	
3	;;	,, Urinary	System tive System-	]	9	1	10	•••	
AL	,,	Mai	le Organs		28	1	28	•••	
LOCAL		Fen	nale Organs		11		11	• • •	
	,,	,, Organs tion	of Locomo-		27		27	2	
	,,	,, Cellular	Tissue [	5	67	2	72	4 2	
7	"	" Skin	• • • • • • •	•••	18	•••	10	2	
[ninni	98 C	eneral		•••	36	1	36	• • •	
22	L	ocal	•••	2	110	5	112	9	
Surgio	al O <sub>l</sub>	perations	•••	•••	•••		•••	•••	
Malfo Poison		ions		•••	• • •		• • •	•••	
Parasi		***	•••	•••	31	• • •	31	• • •	
								0.0	
η	otal	• • •	• • •	21	777	44	798	29	

TABLE IV.

SHEWING EXTERN PATIENTS TREATED AT NATIVE HOSPITAL, CALABAR.

RETURN OF DISEASES AND DEATHS IN 1906, AT CALABAR. Remain-Yearly Total. Remaining ing in Hospital Total in Hospital REMARKS. DISEASES. at end of 1905. Cases at end of Treated. Admissions. Deaths. 1906. Small-pox Varicella 2 2 . . . . . . Measles . . . . . . Typhus . . . . . . . . . Dengue . . . ... . . . . . . 2 Influenza ... 2 Diphtheria . . . ... . . . . . . Febricula ... 27 27 . . . . . . . . . Enteric Fever . . . . . . . . . . . . Cholera . . . . . . . . . Dysentery 15 15 . . . . . . . . . Yellow Fever 1 1 . . . ... Plague . . . . . . Malarial Fever 161 161 . . . Quotidian ... 98 98 Tertian 57 57 . . . . . . Quartian 20 20 (a) Intermittent . . . Irregular ... • • • . . . Type undiagnosed. 2 145 147 (b) Remittent ... . . . (c) Pernicious . . . . . . . . . Beriberi ... ... . . . . . . . . . Erysipelas . . . . . . . . . . . . . . . Pyaemia ... . . . . . . . . . . . . Septicaemia . . . . . . Tetanus 2 2 . . . Tubercle ... 1 1 2 . . . . . . Leprosy ... 1 1 . . . . . . . . . (a) Tubercular . . . . . . (b) Anaesthetic 2 1 3 . . . Yaws14 14 . . . . . . . . . Syphilis 37 37 1 . . . . . . (a) Primary 5 5 . . . . . . (b) Secondary ... 5 5 . . . . . . (c) Inherited ... ... . . . Gonorrhoea 92 92 . . . . . . Hydrophobia . . . . . . . . . . . . Scurvy . . . . . . . . . Alcoholism ... . . . . . . . . . Delirium Tremens . . . Rheumatism 2 1,0411.041 4 Rheumatic Fever Gout 4 New Growth, non-malignant 1 1 . . . . . . New Growth, malignant ... . . . . . . Anaemia ... 4 4 . . . . . . Diabetes mellitus ... . . . . . . . . . Diabetes insipidus ... . . . . . . Debility ... ... 121 121 . . . ... . . . Total 7 1,857 1,864 5 . . .

DISEASES-					Remaining in Hospital at end of 19,5.	Yearly Total.		Total Cases	Remain- ing in Hospital	D.	
						Admissions.	Deaths.	Treated	at end of 19,6.	Remarks.	
Brought forward					7	1,857	, .••.•	1,864	5		
	Diseases of the Nerves—										
		- (M	euritis eningitis	•••	•••	•••	78 	• • •	78 	•••	
			yelitis ydrocepha		• • •	•••	 1	•••	1	•••	
DISEASES.			ncephalitis bscess of I	: Brain	•••		•••	• • •		• • •	
		$ \tilde{\mathbf{Q}} $ Co	ongestion of		•••	••.	•••	•••	•••	• • •	
	US SYSTEM.	Fu:	nctional N Disord	ervous lers.—		•					
	NERVOUS	$\begin{array}{c} \text{Sub-section 2.} \\ \text{Sub-section 2.} \\ \text{Cl} \\ \text{Cl} \\ \text{Sub-section 2.} \\ \text{Cl} \\ \text{Sub-section 3.} \\$	poplexy tralysis	•••	•••	•••		•••		•••	
		Cr.	orea	• • >	•••	•••	* * *	•••	•••	• • •	
	THE	S-S Ne	oilepsy euralgia	•••	•••	• • •	$\frac{1}{169}$	• • •	$\begin{array}{c} 1 \\ 169 \end{array}$	•••	
LOCAL	S OF	$\left  \sum_{i=1}^{\infty} \left( H^{i} \right) \right $	ysteria	• • •	•••	• • •	•••	•••	•••	•••	
	SEASES	m Me	ntal Disea	ises—	3						
	Dis	e Id	iocy	• • •	•••	•••	•••	<i>u</i> • •	• • •	•••	
		ction M	ania e <sup>l</sup> ancholia	• • •	•••	•••		•••	* * *	•••	
			ementia elusional I	 nsanity	•••	•••	•••	• • •	• • •	•••	
		Su		<i>y</i>							
(	Diseases of the Eye					•••	198	•••	198	1	
		,, ,,	Ear Nose	• • •	•••	• • •	82 1	•••	82	•••	
		"		tory Syst			$\begin{array}{c} 24 \\ 686 \end{array}$	•••	$\begin{bmatrix} 24 \\ 690 \end{bmatrix}$	1	
DISEASES,		" "	Respira Digestiv	tory ve Syster	$\frac{1}{n}$	$\frac{4}{3}$	1,206	•••	1,209	1	
SEA		;; ;;	Lympha	atic Syste	$_{ m em}$	•••	64	••	64	1	
		" "	Urmary General	y System tive Syst	····	•••	26 	•••	26	•••	
Local		"		Organs		• • •	18	•••	18	•••	
Loc				e Örgan of Locoi		1	16	•••	17	•••	
		"	tion			1	153	•••	154	1	
		;; ;;	Cellular Skin	Tissue	•••	12 	$\begin{array}{c} 527 \\ 611 \end{array}$	• • •	539 611	10	
Injuries, General			 13	17	•••	17 1,185	11				
,, Local Surgical Operations					5	$\begin{array}{c} 1,172 \\ 59 \end{array}$		64	11		
Malformations							•••	••	-••		
Poisons Parasites					1 .	115	• • •	116	•••		
		Tot	al	•••	•••	47	7,082	•••	7,129	34	

## TABLE V.

### ANALYSIS OF CALABAR WATER SUPPLY.

Received on January 3rd, 1906, from Tap in Laboratory. Labelled Water from Water works.

Number of Sample			
Date of Collection	3rd January, 1906.		1
Appearances in two-foot tube	Clear, colorless, no sediment.	Aerated taste or smell.	
Reaction	Neutral.		
Total Solid Matters  a. Fixed  b. Volatile  Appearance on Ignition	4.5 2 2.5		Parts per hundred
Total Hardness  a. Permanent b. Temporary	4		
Chlorine Equivalent in common Salt	1		thousand
Nitrogen as Nitrates			<u> </u>
Oxygen absorbed from Permanganate:—			Parts
Saline (or "Free") Ammonia	.003		per million.
Organic (or "Albuminoid") Ammonia			
Lead, Copper, Iron	•	_	
Nitrites			
Phosphates		_	
Sulphates	_		
Microscopic Examination of the Sediment by the Filtra- tion Method		<b>2</b>	

I consider this water chemically pure. A bacteriological examination revealed nothing injurious.

A. H. HANLEY,

Health Officer.

Government Laboratory,
Calabar,
Southern Nigeria,
19th January, 1906.